## (19) World Intellectual Property Organization International Bureau





# (43) International Publication Date 30 May 2003 (30.05.2003)

### **PCT**

# (10) International Publication Number WO 03/044050 A1

(51) International Patent Classification<sup>7</sup>:

C07K 14/415

(21) International Application Number: PCT/KR02/02154

(22) International Filing Date:

19 November 2002 (19.11.2002)

(25) Filing Language:

Korean

(26) Publication Language:

English

(30) Priority Data: 2001/71712 19 November 2001 (19.11.2001) KR

(71) Applicant and

(72) Inventor: PARK, Hee-Sung [KR/KR]; #330, Geumrakdong, Hayang-eup, 712-902 Gyeongsan-si, Gyeongsang-buk-do (KR).

(74) Agent: LEE, Duck-Rog; YEiL Patent and Trademark Int'l, YEiL PAT Bldg. 669-17 Yorksam-dong, Kangnam-ku, 135-915 Seoul (KR).

(81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU,

CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

#### Declaration under Rule 4.17:

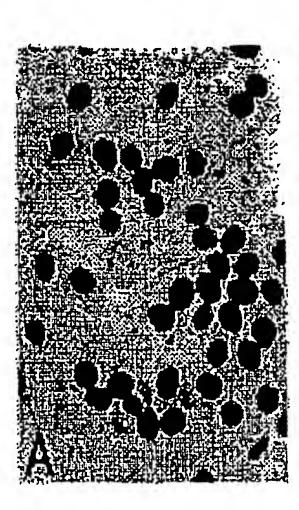
— of inventorship (Rule 4.17(iv)) for US only

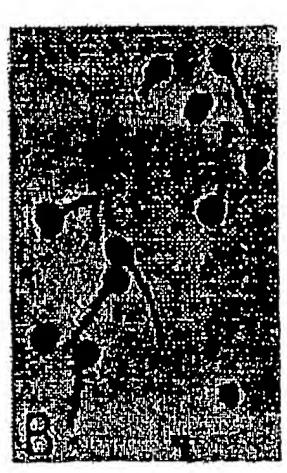
### Published:

— with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: METHOD FOR PRODUCING A RECOMBINANT PROTEIN USING POLLEN







[Note] Microscopic photograph of lily pollens on 0 hr(A), 8 hr(B), 16 hr(C) after culturing in pollen growth medium

(57) Abstract: The invention relates to method for producing a recombinant protein using pollen. More specifically, the invention relates to method for producing a recombinant protein by introducing a recombinant gene into pollen using Agrobacterium tume-faciens via vacuum infiltration and then inducing pollen tube growth, and it makes possible to scale-up recombinant protein within short period of time and low production costs.

03/044050 A1